

REMARKS

Favorable reconsideration of this application is requested in view of the following remarks. Claims 12 and 13 have been cancelled. As such, claims 1-11 and 14-31 are currently pending. Claims 20-31 have been withdrawn from consideration.

The Examiner has objected to the disclosure for failing to contain a reference to the provisional application. The specification is hereby amended to include such reference.

Claim 19 is likewise amended to correct a typographical error as set forth in the Office Action.

Claim 19 has been rejected under 35 U.S.C. 102(b) as being anticipated by Griswold (U.S. Patent No. 2,635,755). Claim 19, as amended, is directed to a method for removing a substance containing sulfur from water. The process includes providing a treatment tank containing a treatment bed that includes carbon and providing a controller for controlling the communication of source water to be treated with the tank and for controlling the regeneration of the tank when regeneration is needed. Water is passed through the treatment tank in order to remove the unwanted substance. Water usage is monitored to determine when a tank requires regeneration. A reservoir of oxidant solution is provided. Source water communication is then terminated with a tank when it is determined that regeneration of a tank is required. Regeneration is afforded by drawing oxidant solution from the reservoir and passing it through the tank. The tank is then rinsed with rinse water to flush the oxidant from the tank. Finally, the tank is re-communicated with the source water to be treated.

The Examiner contends that Griswold teaches all of the steps of claim 19. However, the Griswold reference neither teaches nor suggests the step of monitoring the water usage from the tank to determine when the tank requires regeneration. As such, claim 19 is not anticipated by the Griswold reference. It is respectfully requested that the rejection of claim 19 be withdrawn.

Claims 1, 2, 5, 8, 10, 11, 13, and 15-18 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold in view of Prior et al. (U.S. Patent No. 3,891,552). Claim 1, as amended, recites a method for treating water. The method includes first providing at least two treatment tanks, each tank defining a water treatment compartment containing water treatment material including carbon and communicating a source of water to be treated with each of said treatment tanks. Water to be treated is then passed through the treatment tanks.

A determination is made when one of the tanks requires regeneration and upon such determination the communication of the source water is terminated with the tank.

Regeneration of the tank is effected while the other tank continues to treat source water. The regeneration includes passing an oxidant solution through the treatment tank where the oxidant solution is drawn from a reservoir. Finally, the regenerated tank is re-communicated with the source water to be treated.

The Examiner contends that Griswold recites the claimed features of claim 1 other than a multiple tank system and that Prior discloses such multiple tank treatment system. The method of claim 1 is neither taught nor suggested by the combination of Griswold and Prior. The Griswold reference, as admitted in the Office Action, does not teach a multiple tank system. Prior does not add to Griswold the use of multiple tanks including steps of determining when one of the tanks requires regeneration and upon determining that one of the treatment tanks requires regeneration, terminating the communication of the source water to be treated with one tank and effecting regeneration of the tank while the other tank continues to treat source water. Specifically, the Prior reference does not teach regenerating one tank while the other tank continues to treat source water. This is evident in the disclosure of Griswold in column 3, beginning with line 43 where it states that, “during operation, normal on-line service occurs when one of the softener tanks is on-line receiving untreated water and supplying softened water, while the off-line tank is regenerated and standing by ready for service” (emphasis added). As is apparent from the disclosure in column 3, only one tank is providing treated water at a time and an off-line tank is put online when the on-line tank is in need of regeneration. In claim 1, both tanks are on-line until it is determined that one of the tanks is in need of regeneration. At that point, the tank in need of regeneration is taken off-line and regenerated while the other tank continues to treat and supply water. Once the off-line tank is regenerated, it is placed back online with the other tank. In view of the foregoing, it would not be obvious to one of ordinary skill in the art would not combine the teachings of Prior with Griswold to obtain the multi-tank method recited in claim 1. As such, it is respectfully requested that the rejection of claim 1 be withdrawn.

Claims 2-11 depend from claim 1 and are in condition for allowance for the same reasons as set forth for claim 1 in view of their additional features. As such, claims 2-11 are in condition for allowance. Withdrawal of the rejection of these claims is respectfully requested.

Claim 14 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold and Prior and further in view of Roberts (U.S. Patent No. 2,855,364). Claim 14 recites a method for treating water including providing at least two treatment tanks, each tank defining a water treatment compartment containing water treatment material including a carbon bed where source water to be treated is communicated with the treatment tanks. Water to be treated is passed through the treatment tanks in a first direction until it is determined that one of the treatment tanks requires regeneration. Once this determination is made, source water communication is terminated from the tank to be treated while communication of the source water to be treated is maintained. Regeneration of the tank to be treated is effected by passing water through the treatment tank in a counterflow direction for a predetermined time in order to fluff the carbon bed. An oxidant is conveyed from a reservoir to the treatment tank and the solution is passed through the carbon bed in a counterflow direction for a predetermined time. The flow of oxidant solution is terminated followed by rinsing of the treatment tank. The rinsing involves passing water through the carbon bed in a counter flow direction until the oxidant solution is flushed from the carbon bed. Water is then passed through the carbon bed in the first flow direction for a predetermined time sufficient to compact the bed. Finally, the regenerated tank is re-communicated with the source water to be treated.

The Examiner states that Roberts adds to Griswold and Prior by adding the feature of purifying water with downflow treatment and upflow regeneration. However, for the reasons stated above with respect to claim 1, the combination of Griswold and Prior does not teach a treatment system employing two treatment tanks treating source water and where one of the tanks continues treating source water while the other tank is in a regeneration cycle. As such, Roberts does not cure the deficiencies of the combination of Griswold and Prior and withdrawal of the rejection is respectfully requested.

Claim 15 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Griswold in view of Prior. Claim 15 recites a method of removing a substance containing sulfur from water by providing at least two treatment tanks where each tank contains a material including carbon and providing a controller for controlling the communication of source water to be treated with the tanks, the controller controlling when a treatment tank is on-line and when it is off-line. The method further includes providing a reservoir of oxidant solution and a mechanism to control a regeneration of an off-line tank. The tanks are place

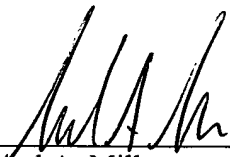
on-line and water is passed through the tanks for treatment. Water usage is monitored and when it is determined that a tank requires regeneration, one of the tanks is placed off-line while the second tank is kept online to continually treat water during the regeneration of the other tank. Regeneration of the tank in need of regeneration includes drawing an oxidant solution from a reservoir and passing the solution through the tank. Finally, the regenerated tank is placed back online.

Claim 15 is patentable over the cited references for the same reasons as set forth above with respect to claim 1. Specifically, Prior, although disclosing a multiple tank system, neither teaches nor suggests a two tank system where the tanks are on-line together until a determination is made that one tank is in need of regeneration, taking that tank off-line, regenerating the tank and placing it back on-line while the other tank continues to treat source water. As such, it would not have been obvious to one of ordinary skill in the art to combine the references to obtain the features of claim 15. Therefore, claim 15 is patentable in view of the cited references and withdrawal of the rejection is respectfully requested.

In view of the foregoing, claim 1-11 and 14-19 are now in condition for allowance. A notice of allowance is hereby solicited.

Respectfully submitted,

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